

## Thiele/Small Parameters

## 45KM122

| Re      | 1.79     | Ohm             | electrical voice coil resistance at DC   |
|---------|----------|-----------------|--|
| Krm     | 0.00335  | Ohm             | WRIGHT inductance model  |
| Erm     | 0.87     |                 | WRIGHT inductance model  |
| Kxm     | 0.0188   | Ohm             | WRIGHT inductance model  |
| Exm     | 0.75     |                 | WRIGHT inductance model  |
| Cmes    | 1541.64  | μF              | electrical capacitance representing moving mass                                |
| Lces    | 17.485   | mН              | electrical inductance representing driver compliance                           |
| Res     | 53.735   | Ohm             | resistance due to mechanical losses  |
| fs      | 30.7     | Hz              | driver resonance frequency   |
| Mms     | 158.712  | g               | mechanical mass of driver diaphragm assembly including air load and voice coil |
| Mmd     | 146.4225 | a               | mechanical mass of voice coil and diaphragm without air load                   |
| Rms     | 1.916    | s<br>ka/s       | mechanical resistance of total-driver losses                                   |
| Cms     | 0.1695   | mm/N            | mechanical compliance of driver suspension                                     |
| Kms     | 5.9      | N/mm            | mechanical stiffness of driver suspension                                      |
| BI      | 10.1465  | Tm              | force factor (BI product)  |
| Lambda  | 0.0265   |                 | suspension creep factor  |
| Qtp     | 0.6045   |                 | total Q-factor considering all losses  |
| Qms     | 15.9625  |                 | mechanical Q-factor of driver in free air considering Rms only                 |
| Qes     | 0.531    |                 | electrical Q-factor of driver in free air considering Re only                  |
| Qts     | 0.5135   |                 | total Q-factor considering Re and Rms only                                     |
| Vas     | 57.92595 | I               | equivalent air volume of suspension  |
| n0      | 0.3025   | %               | reference efficiency (2 pi-radiation using Re)                                 |
| Lm      | 87.01    | dB              | characteristic sound pressure level (SPL at 1m for 1W @ Re)                    |
| Lnom    | 87.495   | dB              | nominal sensitivity (SPL at 1m for 1W @ Zn)                                    |
| rmse Z  | 2.115    | %               | root-mean-square fitting error of driver impedance Z(f)                        |
| rmse Hx | 1.495    | %               | root-mean-square fitting error of transfer function Hx (f)                     |
| Sd      | 490 87   | cm <sup>2</sup> | diaphragm area   |
| 04      |          | OIT             |  |
| Xmax    | 10.3     | mm              |  |